CLAIMS

We claim as our invention:

1. Apparatus comprising:

(a) a processor;

(b) a memory coupled to said processor which stores code for execution on said processor and which stores network transferrable data therein;

(c) an interference detector which is coupled to said processor and which detects interference from an interfering network and attains interfering hop sequence data relating to the interfering network, wherein the interfering network is a frequency hopping spread spectrum (FHSS) network in which a predetermined number of FHSS channels are used for frequency hopping; and

(d) a hop sequencer which is coupled to said processor and which alters the hop sequence of a second FHSS network based upon the interfering hop sequence data;

wherein the altered hop sequence comprises the same number of channels as the predetermined number of FHSS channels and wherein the network transferrable data stored in said memory is transferrable over the second network.

2. Apparatus of claim 1 wherein said interference detector attains the interfering hop sequence data over the second network.

3. Apparatus of claim 1 wherein the altered hop sequence is a sequence which reduces the frequency of collisions between the first and second networks.

4. Apparatus of claim 3 wherein the altered hop sequence is the hop sequence of the interfering network having a predetermined translation applied thereto.

5. Apparatus of claim 1 wherein the altered hop sequence is an offset altered sequence.

6. Apparatus of claim 5 wherein the offset altered sequence is the hop sequence of the second network having an offset applied thereto.

7. Apparatus of claim 5 wherein the offset altered sequence is the hop sequence of the interference network having an offset applied thereto.

8. Apparatus of claim 1 wherein said interference detector (c) detects interference as a degradation in network performance on the second network.

9. Apparatus of claim 1 wherein said processor is the processor which controls the principal functionality of said apparatus.

10. Apparatus of claim 9 wherein said processor comprises a plurality of sub-processors which control the various elemental aspects of said apparatus.

11. Apparatus comprising:

(a) a processor;

(b) a memory coupled to said processor which stores code for execution on said processor and which stores network transferrable data therein;

(c) a mode switch coupled to said processor which selects a hop sequence operating mode in a frequency hopping spread spectrum (FHSS) network in which a predetermined number of FHSS channels are used for frequency hopping, wherein the selected mode is one of at least a mode which dictates a hopping sequence and a mode which follows a hopping sequence;

(d) an interference detector which is coupled to said mode switch and which detects interference from an interfering network and joins the interfering network and determines interfering hop sequence data relating to the interfering network and thereafter joins a second network and based upon the mode selected by said mode switch performs a first predetermined action wherein the first predetermined action is an action selected from the group consisting of

(i) reporting the interfering hop sequence data over the second network, and

(ii) saving the interfering hop sequence data in local storage; and

(e) a hop sequencer which is coupled to said processor and which obtains the interfering hop sequence data by performing a second predetermined action wherein the second predetermined action is an action selected from the group consisting of

(iii) accepting the interfering hop sequence data over the second network, and

(iv) reading the interfering hop sequence data from local storage,

and which alters its dictated hop sequence while operating in the mode which

dictates the hopping sequence based upon the obtained interfering hop sequence data;

wherein the altered hop sequence comprises the same number of channels as the predetermined number of FHSS channels and wherein the network transferrable data stored in said memory is transferrable over the second network.

12. Apparatus of claim 11 wherein the altered hop sequence is a sequence which reduces the frequency of collisions between the first and second networks.

13. Apparatus of claim 12 wherein the altered hop sequence is the hop sequence of the interfering network having a predetermined translation applied thereto.

14. Apparatus of claim 11 wherein the altered hop sequence is an offset altered sequence.

15. Apparatus of claim 14 wherein the offset altered sequence is the hop sequence of the second network having an offset applied thereto.

16. Apparatus of claim 14 wherein the offset altered sequence is the hop sequence of the interference network having an offset applied thereto.

17. Apparatus of claim 11 wherein said interference detector (c) detects interference as a degradation in network performance on the second network.

18. Apparatus of claim 11 wherein said processor is the processor which controls the principal functionality of said apparatus.

19. Apparatus of claim 18 wherein said processor comprises a plurality of sub-processors which control the various elemental aspects of said apparatus.

20. A method comprising the steps of:

(a) detecting interference produced by a first network, wherein the first network is a frequency hopping spread spectrum (FHSS) network in which a predetermined number of FHSS channels are used to perform the frequency hops;

(b) determining interference hop sequence data which relates to the first network and making the interference hop sequence data available on a second FHSS network; and

(c) altering the hop sequence of the second network based upon the determined interference hop sequence data;

wherein the altered hop sequence comprises the same number of channels as the predetermined number of FHSS channels, and wherein at least said detecting step (a) is performed by a device having a processor and a memory which stores network transferrable data therein.

21. The method of claim 20 wherein the altered hop sequence is a sequence which reduces the frequency of collisions between the first and second networks.

22. The method of claim 21 wherein the altered hop sequence is the hop sequence of the interfering network having a predetermined translation applied thereto.

23. The method of claim 21 wherein the altered hop sequence is an offset altered sequence.

24. The method of claim 20 wherein said detecting step (a) includes detecting a degradation in network performance on the second network.

25. The method of claim 20 wherein said determining step (b) is performed by a slave device on the second network.

26. The method of claim 20 wherein said altering step (c) is performed by a master device on the second network.

27. A method comprising the steps of:

(a) detecting interference produced by a first network, wherein the first network is a frequency hopping spread spectrum (FHSS) network in which a predetermined number of FHSS channels are used to perform the frequency hops;

(b) joining the first network to determine interference hop sequence data which relates to the first network;

(c) joining a second FHSS network to perform a first predetermined action wherein the first predetermined action is selected from the group consisting of (I) an action which reports the interference hop sequence data over the second network, and (ii) an action which saves the interference hop sequence data in local storage;

(d) obtaining the interference hop sequence data through a second predetermined action wherein the second predetermined action is selected from the group consisting of (iii) an action which accepts the interference hop sequence data over the second network, and (iv) an action which reads the interference hop sequence data from local storage; and

(e) altering the hop sequence of the second network based upon the obtained interference hop sequence data;

wherein the altered hop sequence comprises the same number of channels as the predetermined number of FHSS channels, and wherein at least said detecting step (a) is performed by a device having a processor and a memory which stores network transferrable data therein.

28. The method of claim 27 wherein the altered hop sequence is a sequence which reduces the frequency of collisions between the first and second networks.

29. The method of claim 28 wherein the altered hop sequence is the hop sequence of the interfering network having a predetermined translation applied thereto.

30. The method of claim 27 wherein the altered hop sequence is an offset altered sequence.

31. The method of claim 30 wherein the offset altered sequence is the hop sequence of the second network having an offset applied thereto.

32. The method of claim 30 wherein the offset altered sequence is the hop sequence of the interference network having an offset applied thereto.

33. The method of claim 27 wherein said detecting step (a) includes detecting a degradation in network performance on the second network.

34. The method of claim 27 wherein said determining step (b) is performed by a slave device on the second network.

35. The method of claim 27 wherein said altering step (c) is performed by a master device on the second network.

36. The method of claim 27 wherein a slave device on the second network performs said detecting step (a), said joining step (b), and said joining step (c).